AYUSHDHARA
ISSN: 2393-9583 (P)/ 2393-9591 (O)
An International Journal of Research in AYUSH and Allied Systems

Case Study

A CASE REPORT ON DIABETES MELLITUS WITH HOLISTIC APPROACH

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Article info
Article History:
Received: 19-01-2025
Accepted: 28-02-2025
Published: 20-03-2025
KEYWORDS:
Hba1c, Diabetes, Ayurveda, *Madhuhara Churna.*

ABSTRACT

This case report presents the successful management of an elderly patient with uncontrolled diabetes, hypertension, and associated urinary complaints using Ayurvedic interventions. The treatment approach included *Kathakakhadiradi Kashaya*, *Ashwagandha Churna*, and *Madhuhara Churna*, targeting both metabolic regulation and stress reduction. The patient initially presented high HbA1c levels (11.7%) and mean blood glucose of 289.09mg/dL. A treatment regimen focusing on *Deepana*, *Pachana*, *Lekhana*, and *Medohara* therapies was implemented. After nine months of Ayurvedic intervention, HbA1c dropped to 4.9%, with significant improvements in glycemic control and overall well-being. The patient also reported complete relief from urinary symptoms. The herbal formulations demonstrated notable efficacy in restoring pancreatic function, enhancing insulin secretion, reducing insulin resistance, and mitigating stress-induced hyperglycemia. The adaptogenic properties of *Ashwagandha* further contributed to stress reduction, improving glycemic stability. No adverse effects were observed, and the patient continues to be monitored for potential reduction in conventional oral anti-hyperglycemic medications. This case highlights the potential of Ayurvedic formulations as an effective complementary approach in diabetes management. The integration of *Kathakakhadiradi Kashaya*, *Ashwagandha*, and *Madhuhara Churna* presents a promising natural alternative for improving glycemic control, reducing complications, and enhancing overall metabolic health in diabetic patients.

INTRODUCTION

Diabetes, particularly Type 2 Diabetes Mellitus (T2DM), is a significant public health concern in India, which houses the second-largest diabetic population globally. Its prevalence has skyrocketed due to rapid urbanization, sedentary lifestyles, and unhealthy dietary habits. According to recent estimates, nearly 77 million Indians suffer from diabetes, with projections suggesting a substantial increase in the coming decades. The condition often remains undiagnosed in its early stages, leading to delayed treatment and increased risk of complications. Diabetes significantly contributes to morbidity, reducing life expectancy and quality of life while imposing a heavy economic burden on individuals and the healthcare system.

The disease profoundly impacts daily life, as persistent symptoms such as fatigue, frequent urination, and slow wound healing hinder routine activities. Over time, diabetes leads to severe complications, including cardiovascular diseases, neuropathy, nephropathy, and retinopathy, which can result in disability or loss of independence.[1] It also affects mental health, with patients often experiencing stress, anxiety, or depression. The cumulative effect of these challenges limits personal productivity, strains family resources, and diminishes overall well-being, highlighting the urgent need for effective management and preventive strategies.

In Ayurveda, diabetes, or *Madhumeha*, is considered a chronic metabolic disorder primarily linked to an imbalance in *Kapha dosha*, with

Access this article online
Quick Response Code
https://doi.org/10.47070/ayushdhara.v12i1.1942
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secondary involvement of *Vata* and *Pitta doshas.* Excessive *Kapha*, caused by unhealthy dietary and lifestyle habits, leads to reduced digestive fire (*Agni*), resulting in improper metabolism and the accumulation of toxins *(Ama).* This disrupts the normal functioning of tissues (*Dhatus*) and channels (*Srotas*), particularly affecting *Meda Dhatu* (fat tissues) and *Ojas* (vital energy). Over time, *Vata* aggravation contributes to the degeneration of bodily systems, while *Pitta* imbalance exacerbates metabolic irregularities. Ayurvedic management aims to restore *Doshic* harmony through tailored dietary guidelines, cleansing therapies, and lifestyle modifications, addressing both symptoms and root causes for holistic well-being.

CASE REPORT

A 76-year-old male patient visited Ayurcentral clinic, Kammagondanahalli, with chief complaints of increased frequency of micturition and tight foreskin. Upon history taking, it was noticed that patient had a frequent bout of urinary infection along with the history of being a hypertensive for past 27 years and uncontrollable diabetes from past 4 years for which he has been having conventional treatment.

The patient has been taking Telmisartan 40mg twice a day for his hypertension and metformin, glimepiride and sitagliptin for diabetes.

Physical Examination

Abdomen: Soft, non-tender

Cardiovascular: S1, S2 heard

Pulmonary: Normal breath sounds bilaterally

Diagnosis: *Madhumeha* (type 2 diabetes mellitus)

***Prakriti* (physical diagnosis):** *Kapha-Vata prakriti*

General findings

BP: 110/80 mm Hg

Pulse: 80/minute

Weight: 82 kg

Ashtasthana Pareeksha

Nadi: 80 bpm

Mala: *Vibhandha*

Mutra: 5-6 times a day/ once in night

Jihwa: Lipta, Vatakaphaja jihwa

Shabda: Prakruta

Sparsha: Anushna sheeta

Drik: History of cataract surgery

Akrithi: Madhyama

***Dosha, Dushya lakshana*:** *Madhumeha*, classified as a *Vata-Kapha Pradhan Tridoshaja Vyadhi*. Due to application of *Tridosha*, *Meda Dhatu* and *Kleda*, the treatment measure was emphasized on *Deepana, Pachana, Lekhana, Vata-Kaphahara*, and *Medohara* properties to effectively manage the condition.[2]

Assessment criteria: The complaints that the patient approached was better hence the criteria of assessment remained objective parameters like HbA1c and mean blood glucose along with overall well-being feeling.

Investigations: HbA1c and mean blood glucose was done before and after treatment to evaluate the efficacy of the treatment.

Management of the condition: The patient was initially treated with *Amapachana* drugs before starting treatment for the diabetes to ensure better digestion, *Niramavastha*, and good absorption of the medicines prescribed. After initial *Deepana* and *Pachana* treatment, the patient was prescribed with following medicines:

Medications and Dosage

Table 1: Depicts the medications given, the duration and the dose

S.No	Name	Dose	Duration
1	*Chandraprabha vati*	1-0-1after food	15 days
2	*Madhuhara churna*	5g-0-5g with warm water mixed with drug no. 3	Since day 1 to till now
3	*Ashwagandha churna*	5g-0-5g with warm water	Since day 1 to till now
4	*Kathakakhariradi kashaya*	10ml -0-10ml	Since day 1 till the latest blood report

After a follow-up of a 20days, the HbA1c was noted to be at 8.6 with average glucose reduced to 200.12. Also, the patient had total relief of frequent micturition, scanty urination and tight foreskin, hence *Chandraprabha vati* was stopped. *Ashwagandha* was prescribed as the patient was pursuing Ph.D. and was under the stress to meet the deadlines and was continued throughout. The same treatment was followed for

another 6 months without much change in prescription or diet modifications. After 9 months, the HbA1c was noted to have been reduced to 4.7mg/dl and mean blood glucose to be at 97mg/dl.

Madhuhara churna, a unique product from Ayurvedaone for *Madhumeha*, is a proprietary medicine for diabetes management with herbs like *Jambu, Karavellaka, Meshashrungi, Methika, Katuki, Saptaparna, Nimba, Bilwa, Shuddha shilajit, Guduchi, Chirayata* and *Latakaranja.*

RESULTS

Table 2: Subjective parameters and its improvement before and after treatment

S.no	Symptom	Before treatment	After treatment
1	Increased frequency of micturition	Present	Absent
2	Feeling of incomplete micturition	Present	Absent
3	Tight foreskin	Non retractable	Easily retractable

Table 3: Diagnostic test results before, during and after the treatment

Investigations	29/03/2024	12/04/2024	19/04/2024	03/12/2024
HbA1c	11.7%	9.4%	8.6%	4.9%
Mean blood glucose	289.09mg/dL	223.1mg/dL	200.12mg/dL	97mg/dL

DISCUSSION

The treatment was planned to reduce the patient's blood glucose levels and Hba1c though the patient did not have any specific complaints. Considering his age, *Shodhana* therapy was not planned. Hence the patient was started on *Kathakakhadiradi Kashaya* which is indicated in the treatment of *Prameha*. Along with this, *Ashwagandha churna* was also administered to address the stress.

Kathakakhadiradi Kashaya[3] a traditional Ayurvedic herbal formulation, is highly beneficial in managing diabetes by improving insulin expression and regulating glucose metabolism. It helps restore pancreatic function by increasing insulin production and supporting key glucose-metabolizing enzymes like glucose-6-phosphatase and fructose-1,6-bisphosphatase. This regulation helps maintain blood sugar levels and prevents hyperglycemia-related damage to pancreatic β-cells. Rich in bioactive compounds such as glycosides, alkaloids, flavonoids, and terpenoids, *Kathakakhadiradi Kashaya* plays a crucial role in enhancing insulin secretion and facilitating efficient glucose utilization. Its immunohistochemical effects indicate its ability to protect pancreatic tissues, ensuring sustained insulin output. Additionally, *Kathakakhadiradi Kashaya*'s natural anti-hyperglycemic properties make it a promising remedy for diabetes, supporting traditional Ayurvedic wisdom. By improving insulin function and maintaining glucose metabolism, *Kathakakhadiradi Kashaya* offers a natural and effective approach to diabetes management, making it a valuable addition to holistic health practices focused on metabolic wellness.

Ashwagandha[4] is highly beneficial for managing stress in individuals with Type 2 diabetes mellitus *(Madhumeha).* Stress is a major factor that affects blood sugar regulation, insulin sensitivity, and overall quality of life in diabetics. *Ashwagandha*, known for its adaptogenic properties, helps reduce stress levels and improve glycemic control. Regular consumption of *Ashwagandha* can lower fasting blood sugar (FBS), postprandial blood sugar (PPBS), and HbA1c levels, promoting better metabolic balance. By enhancing the body's stress response, it reduces the negative impact of emotional and physiological distress on diabetes management. The effects of *Ashwagandha* are long-lasting, continuing even after discontinuation, making it a reliable natural remedy. Its safety and efficacy make it a valuable addition to diabetes care, supporting both physical and mental well-being. With its ability to regulate blood sugar and combat stress, Ashwagandha serves as a holistic solution for improving diabetes management and overall health.

Madhuhara Churna is a product composed of herbs like *Jambu,*[5] *Methika*[6], *Karavellaka*[7], *Nimba*[8], *Guduchi*[9], *Saptaparna*[10], *Meshashrungi*[11], *Bilwa*[12], *Chirayata*[13], *Latakaranja*[14], *Shilajit*[15], and *Katuki*[16] that offers a multifaceted approach to managing pre-diabetes, diabetes, and its complications. Most of the herbs are *Ushna veerya* in nature that facilitates in reduction and control of *Vata* and *Kapha dosha*. *Jambu, Nimba, Chirayata, Katuki* are *Vata–Pitta hara* in nature and

Karavellaka, Methika, Saptaparni, Meshashringi, Bilwa, Lata Karanja, Shilajit are *Vata-Kaphahara* in nature. The synergistic effects of these herbs are *Tridosha hara* in nature that helps in breaking the *Samprapti* of the *Vyadhi*. These ingredients collectively enhance insulin secretion, improve β-cell function, increase glucose uptake by cells, and reduce insulin resistance. They also lower blood glucose, HbA1c, and lipid levels while providing antioxidant, anti-inflammatory, and neuroprotective benefits. By targeting key pathways such as GLUT-4 modulation, α-glucosidase inhibition, and oxidative stress reduction, this formulation supports glycemic control, prevents diabetes progression, and mitigates complications like neuropathy, nephropathy, and cardiovascular issues, making it a comprehensive natural remedy

CONCLUSION

There were no adverse events during the patient's treatment course. Though the patient had an elevated HbA1c and uncontrolled sugar levels, due to recent origin or lack of any diabetic complications, also with combination of healthy and active lifestyle, the *Shamana oushadhi* that were prescribed were able to give significant changes in his blood parameters. The patient is still on oral anti-hyperglycemic agents and is advised to meet his doctor to reduce or wean his OHA medications if deemed fit.

Limitations: The result in a single case report could be incidental and a study with same treatment has to be conducted on a larger sample to conclude the effectiveness of the combination.

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Cite this article as:
Kushal Prasad, Manoj Kumar Samantray, Usharani. A Case Report on Diabetes Mellitus with Holistic Approach. AYUSHDHARA, 2025;12(1):89-93.
https://doi.org/10.47070/ayushdhara.v12i1.1942
Source of support: Nil, Conflict of interest: None Declared

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